

IN THE SPECIFICATION:

Please replace paragraph [0037] with the following:

A novel aspect of the invention is the use of the cesium ion implant 100 post silicide electrical test in order to tune the threshold voltage, V_t . As such, the invention centers both the nFET and pFET threshold voltages, V_t , which are slightly too positive (for the desired application) at the PSP electrical test. In particular, those processes which are responsible for determining the V_t (at the point that silicide processing is completed) are engineered to result in a nominal V_t for both nFET and pFET configurations, which is more positive than the final desired V_{ts} (V_{tf}) when the BEOL processing is complete. For example, if the tolerance of the V_t is given by dV_t , then the process is designed (e.g. by choice of halo ion-implant doses and energies) to yield a threshold voltage of $V_{tf} + dV_t$. When a given wafer is fabricated and tested at PSP, a particular value of V_t is measured and will have some particular offset, V_{toff} , above the final target V_{tf} . A cesium ion dose normal to the channel surface is then calculated for each type of FET, using $N_{Cs} = 2C_{ox} \times V_{toff}/Q_e$, where C_{ox} is the capacitance per unit area of the gate electrode to the channel, and Q_e is the unit electronic charge (approximately $1.6 \times 10^{-19}C$). The dose of ions actually ion-implanted must be adjusted to account for the geometry of the structure. For instance, when ion-implantation is normal to the wafer surface and the FinFET presents a channel which is normal to the wafer, then the implanted dose must be a factor of the fin height divided by the gate oxide thickness times the calculated normal dose.

Please replace the abstract with the following:

~~A method and structure for tuning a threshold voltage of nFET and pFET devices in a double-gate CMOS integrated circuit structure, wherein the method comprises performing a PSP (post silicide processing) electrical test on the double-gate CMOS integrated circuit structure, determining nFET and pFET threshold voltages during the PSP test, and implanting the double-gate CMOS integrated circuit structure with an alkali metal ion, wherein the step of implanting adjusts the nFET and pFET threshold voltages by an amount required to match desired off-currents for the nFET and pFET devices. According to the method, prior to the step of performing, the method comprises forming a fin structure over an isolation layer, forming source/drain regions over the fin structure, depositing a gate oxide layer adjacent to the source/drain regions, and forming a gate region over the gate oxide layer and the fin structure. The metal ion comprises any of cesium and rubidium.~~

A field effect transistor (FET) comprising an isolation layer, a source region positioned over the isolation layer, a drain region positioned over the isolation layer, a bifurcated silicide gate region positioned over the channel region, and a gate oxide layer adjacent to the gate region, wherein the gate oxide layer comprises an alkali metal ion implanted at a dosage calculated based on threshold voltage test data provided by a post silicide electrical test conducted on said FET, wherein the alkali metal ion comprises any of cesium and rubidium.